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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,556	03/11/2004	Michael H. Zimmerman	128346-60601	7793
James M. Singer Pepper Hamilton LLP One Mellon Center, 50th Floor 500 Grant Street Pittsburgh, PA 15219				
7590 07/14/2008				
EXAMINER				
FRIDIE JR, WILLMON				
ART UNIT		PAPER NUMBER		
3724				
MAIL DATE		DELIVERY MODE		
07/14/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/799,556

**Applicant(s)**

ZIMMERMAN ET AL.

**Examiner**

Willmon Fridie

**Art Unit**

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Murray ET al. in view of Enomoto et al.

Murray et al. lacks the disclosure of an average grain size less than or equal to about 10 um. Enomoto et al. discloses abrasive grains made up silica grains where the primary average grain size of the silica grains is desirably 0.8 nm to 10 um.

Therefore it would have been obvious to a skilled artisan to provide the cutting tool of Murray et al. with discloses abrasive grains made up silica grains where the primary average grain size of the silica grains is less than or equal to 10 um. In the manner as taught by Enomoto et al. in order to improve the cutting efficiency of the tool.

In regard to claims 8,9,15 and 16, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416. Murray ET al. in regard to claim 18 and 19, the choice of tools would have been an obvious matter of design choice to a skilled artisan depending on the desired use of the assembly.

Claims 1-6, 22 -24 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Fladgard et al. in views of Murray et al. and Enomoto et al.

Fladgard et al. discloses the method as set forth and as broadly presented except for an insert with superabrasive material thereon. Murray et al. teaches the use of superabrasive material on a cutting tool. It would have been obvious to a skilled artisan at the time the invention was made to provide the cutting insert of Fladgard et al (34) with a super abrasive coating as taught by Murray et al. in order to improve the cutting efficiency of the tool. Further, it would have been obvious to a skilled artisan to provide the cutting tool used in the method of Fladgard et al as modified by Murray et al. with discloses abrasive grains made up silica grains where the primary average grain size of the silica grains is less than or equal to 10 um. In the manner as taught by Enomoto et al. in order to further improve the cutting efficiency of the tool.

In regard to claims 2-4 and 23, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the claimed materials, since it has been held to be within the general skill of a worker in the art to select a known material

on the basis of its suitability for the intended use as a matter of obvious design Choice.

In re Leshin, 125 USPQ 416.

In regard to claims 5 and 6, the orientation and movement of the work and tool relative to each other would have been an obvious matter of design choice, since these particular arrangements are old and well known.

### **Response to Arguments**

Applicant's arguments filed 3/5/08 have been fully considered but they are not persuasive.

Applicant argues that a person having ordinary skill in the art would not combine the cutting tool of Murray with the silica abrasive gains having a primary average grain size of between 0.8 lml to 10 gm of Enomoto, to form a cutting tool insert or machining tool for machining fiber cement. Applicant infers from his arguments that the references cited in the rejection are non-analogous. In response to applicant's argument the examiner submits that it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, both references are clear disclosures of methods and apparatus for machining a workpiece as is recited in applicant's claim.

Further, Murray et al. disclose that metalcutting capabilities are enhanced through the use of the advanced material and a consistent, integral chipbreaking

capability is ensured. Enomoto merely is used to show that the claimed grain sizes can be used in the industry.

With respect to applicants arguments against the combination of Flagard et al. in view of Murray et al and Enomoto et al. the examiner submits that to provide the device of Flagard et al. with superabrasive material thereon would have been obvious to one of ordinary skill in the art, in view of the teachings of Murray et al. since all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, i.e., one skilled in the art would have recognized that the superabrasive elements would allow the machine tool of Flagard et al. to be enhanced through the use of the advanced material .

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Willmon Fridle whose telephone number is 571 272 4476. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ASHLEY BOYER can be reached on 571 272 4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

wf  
/Willmon Fridle/  
Primary Examiner, Art Unit 3724

